

## **REMARKS**

The issues outstanding the Office Action mailed August 20, 2007, are the objection to the Information Disclosure Statement, the objection to the Specification and Claims, and the rejections under 35 U.S.C. §112, §102, §103 and the doctrine of obviousness-type double patenting. Reconsideration of each of these issues, in view of the discussion below, is respectfully requested.

### **Information Disclosure Statement**

The examiner has denied consideration of the Information Disclosure Statement filed on May 4, 2005. This action is clearly in error, inasmuch as the form PCT/DO/EO/903 indicates that the annexes to the International Preliminary Examination Report were received along with the International Search Report. In any event, the apparently missing references are provided again herewith, with an additional IDS and Form 1449. (It is noted that U.S. Patent 7,033,016 is substituted in place of WO 0207656 A1, as the WO is in Japanese and the '016 is the U.S. Equivalent). The examiner is respectfully requested to initial and return the PTO Form 1449 with the next Office Action.

### **Specification**

The Specification has been edited in order to address typographical and grammatical errors. The examiner's pointing out of these issues is appreciated. Withdrawal of the objection to the Specification is therefore respectfully requested.

### **Claim Objections**

Claim 2 has been amended in order to provide context for the concentration of borate, as evident from the application. Withdrawal of the objection is therefore respectfully requested.

### **Rejections under 35 U.S.C. §112**

Claims 5, 6, 9, 10, 14 and 15 have been rejected under 35 U.S.C. §112, second paragraph. Various grammatical and typographical errors have been corrected, without

changing the scope of the claims. Withdrawal of this rejection is respectfully requested.

### **Rejections under 35 U.S.C. §102**

Claims 1-3, 5, 8, 9, 15 and 16 have been rejected under 35 U.S.C. §102(b) over Kitamura et al. (2001/0016249), hereinafter referred to as Kitamura '249. Reconsideration of this rejection is respectfully requested.

It is believed that, perhaps, the examiner has overlooked the Article 34 amendments, reciting that the treatment solution used to prepare the inkjet recording material contains a boric acid, a borate and a water-soluble magnesium salt. Kitamura discloses a paper sheet having a substrate formed of, i.e., wood pulp, and a recording layer containing a binder and an image light resistance-enhancing agent comprising "at least one member selected from the group consisting of phenolic compounds, boric acid, borate salts and cyclodextrine compounds." See paragraph 0165. This paragraph, listing four broad classes of materials, does not *anticipate* a material containing both borate and boric acid, as well as a water-soluble magnesium salt simultaneously. Paragraph 0170 teaches that a combination of phenolic compound with a salt selected from salts of sodium, magnesium, calcium, aluminum, phosphorus, titanium, iron, nickel, copper, and zinc, for example, nitrates, sulfates, phosphates, hydrogen phosphates, citrates, propionates and chlorides of the above-mentioned elements, may be used as a light resistance-enhancing agent for the recorded images. More enhanced light resistance of the ink images recorded on the recording material can be obtained by using chlorides of divalent metals, especially, magnesium chloride or calcium chloride. Accordingly, Kitamura '249 at best teaches that boric acid, borate salts, chlorides of divalent metals etc., can be used alternatively, but even reading paragraphs 0165, 0169 and 0170 together, it is clear that the disclosure does not teach simultaneous use of borate, boric acid and magnesium chloride.

In addition, as noted in the Office Action, the present materials are prepared by a cast coating method, not an inkjet recording medium obtained by coating by a dye coater (see paragraph 0154 of Kitamura '249). The recording medium produced by the presently cited process is, in a product sense, different from an inkjet recording medium produced by the dye coder method of the reference. The cast coating method, where a coating layer is pressure-adhered to the surface of a metal drum having mirror smoothness while the coating layer is

wet, allowing water to evaporate from the coating layer through the back of the base substrate having air permeability, provides a coating layer having excellent water permeability and excellent surface gloss, which cannot be produced by the prior art method. Thus, the products of the present claims, and those of the reference, are different.

Accordingly, withdrawal of the rejection under 35 U.S.C. §102 is respectfully requested.

### **Rejections under 35 U.S.C. §103**

#### **Rejection over Kitamura '432**

Claims 12, 13 and 14 have been rejected under 35 U.S.C. §103 over Kitamura et al., U.S. Patent 6,689,432 (hereinafter referred to as Kitamura '432). Reconsideration of this rejection is respectfully requested.

At page 8 of the Office Action, despite citing Kitamura '432, appears to make its rejection over the published Kitamura application. In any event, these documents are equivalent. The examiner's rejection of these claims is directed to the argument that the amount of water-soluble magnesium salt would be obvious in view of the reference disclosure. However, although it is argued to be "entirely possible to replace the sodium cation in borax with a magnesium cation since they are functional equivalents," in fact, this is not true. While arguably, in Kitamura where boric acid, or borate or magnesium salts are used in the alternative, as image light resistance-enhancing agents in the present situation where borate and boric acid are *simultaneously* present, they provide a different function. In particular, as discussed at pages 8-9 of the present specification, boric acid and borate function as solidifiers of the polyvinyl alcohol, while magnesium salt functions as an enhancing agent of the file storage properties, i.e., an anti-yellowing agent. See page 9, line 24 through page 25, line 15 in the present specification. It is submitted that, where borate and boric acid are both present, it would not be obvious to replace any of the borate with a magnesium salt, inasmuch as one of ordinary skill in the art would not understand what the effect would be on the properties of the material, and moreover, would not expect the divergence in function discussed above.

With respect to Claim 15, Kitamura '432 does not suggest the use of boric acid and borate together with a releasing agent having a melting point of 90 - 150° C. Thus, it is

submitted that one of ordinary skill in the art would not find obvious, in view of Kitamura, to choose an appropriate releasing agent for the recording medium of Claim 15, inasmuch as the patentees do not teach the use, simultaneously, of boric acid and borate.

Accordingly, withdrawal of this rejection is also respectfully requested.

#### Rejection over Kitamura '432 taken with Yoshida

Claims 1-3, 5, 8-10 and 12-16 have been rejected under 35 U.S.C. §103 over Kitamura '432 taken with Yoshida et al. (JP 2002-283697, JP 2002-293004 or WO 02/076756). Reconsideration of this rejection is also respectfully requested.

Although Claims 1-3, 5, 8-10 and 12-16 are stated in paragraph 11 as being subject to this rejection, it is clear from the text at page 9 of the Office Action, that the rejection is principally focused upon Claim 10, in view of the discussion in the above-noted portion of the Office Action, of the range of boric acid and borate salt in Claim 10. However, as noted above, Kitamura fails to disclose simultaneous use of boric acid, borate and magnesium salt. Moreover, since patentees do not exemplify the use of polyvinyl alcohol, it would not have been obvious to one of ordinary skill in the art to employ simultaneously boric acid and borate, solidifiers of PVA.

In short, applicants have determined surprising effects from the combination of all three of borate, boric acid and magnesium salt, which effects are not taught in the reference which discloses various alternatives which can only be pieced together in a simultaneous fashion through the use of hindsight and the present specification, which teaches the reasons to employ these components at the same time. Accordingly, withdrawal of this rejection is respectfully requested.

#### Double Patenting

Claims 1-3, 5, 6, 8-10 and 12-16 have been rejected under the doctrine of obviousness-type double patenting over U.S. Patent 7,033,016. This patent fails to claim the use of magnesium salt. Thus, its claims do not render obvious the present claims, and withdrawal of the rejection is appropriate and respectfully requested.

Claims 1-3, 5, 6, 8-10 and 12-16 have also been rejected under the doctrine of obviousness-type double patenting over co-pending application serial number 10/509,371.

Reconsideration of this rejection is also respectfully requested.

The recited application does claim the use of magnesium salt. Thus, it clearly does not suggest the presently claimed materials. Accordingly, withdrawal of this rejection is also respectfully requested.

The claims in the application are submitted to be in condition for allowance. Prompt passage to issue is respectfully requested. However, if the examiner has any questions or comments, he is cordially invited to telephone the undersigned at the number below.

No fee is believed due with this response, however, the Commissioner is hereby authorized to charge any fees associated with this response or credit any overpayment to Deposit Account No. 13-3402.

Respectfully submitted,

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